

WHAT IS CLAIMED IS:

1. A mechanism for positioning a substrate of an image sensor, the substrate having a first edge, a second edge, a third edge and a fourth edge, the mechanism comprising:

- 5 a standard unit having a first standard plane and a second standard plane perpendicular and adjacent to the first standard plane, the first standard plane and the second standard plane defining a positioning region in which the substrate is positioned, and the first edge and the second edge adjacent to the first edge contacting the first standard plane and the second standard plane, respectively;
- 10 a link unit including a first link and a second link pivotally mounted to the first link at a pivotal portion for positioning the third edge of the substrate; and
- a push-up needle unit for positioning the fourth edge of the substrate, wherein when the link unit operates, the push-up needle unit and the pivotal portion of the link unit are moved toward the fourth edge and the third edge of the
- 15 substrate, respectively, to position the substrate, a flexible element being arranged within the push-up needle unit so that when the push-up needle unit contacts the fourth edge of the substrate, the push-up may be retractable.

2. The mechanism according to claim 1, further comprising a cam, which is mounted to the pivotal portion to push the third edge of the substrate.

- 20 3. The mechanism according to claim 1, wherein the first link has a first end pivotally mounted to the standard unit and a second end pivotally mounted to the

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second link, and the second link has a first end pivotally mounted to the first end of the first link and a second end pivotally mounted to the push-up needle unit.

4. The mechanism according to claim 1, wherein the push-up needle unit includes a third link and a push-up needle mounted to the third link to push the
5 fourth edge of the substrate.

5. The mechanism according to claim 4, wherein the second link is pivotally mounted to the third link.

6. The mechanism according to claim 4, wherein the flexible element is arranged within push-up needle, a steel ball is arranged within the push-up needle
10 and mounted before the flexible.